

Memorandum

Date : August 9, 1999

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Subject : Three Mountain Power Project (99-AFC-2) Staff Issue Identification Report

Attached is our Issue Identification Report for the Three Mountain Power Project (99-AFC-2). This report serves as a preliminary scoping document identifying issues that we believe to be potentially significant. We will present the issues report at the Committee's scheduled Informational Hearing on August 16, 1999.

Attachments

rkb:rkb

cc: 99-AFC-2 Proof of Service List
Three Mountain Agency List

Issue Identification Report

Three Mountain Power Project (99-AFC-2)

August 9, 1999

CALIFORNIA ENERGY COMMISSION
Energy Facilities Siting and Environmental Protection Division

ISSUE IDENTIFICATION REPORT

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ISSUE IDENTIFICATION REPORT

Three Mountain Power Project (99-AFC-2)

This report has been prepared by the California Energy Commission staff to inform the Committee and all interested parties of the potential issues that have been identified in the case thus far. These issues have been identified as a result of our site visits, discussions with federal, state and local agencies, and our review of the Three Mountain Power Project Application for Certification (application), Docket Number 99-AFC-2. The Issue Identification Report contains a project description, a summary of potentially significant environmental and transmission system engineering issues, and a discussion of project scheduling issues.

PROJECT DESCRIPTION

On March 3, 1999 the Three Mountain Power, Limited Liability Company (the applicant) filed an application for the Three Mountain Power Project. The project will be a nominal 500-megawatt (MW), natural gas-fired combined cycle power plant located in northeastern Shasta County, approximately 1 mile northeast of Burney, California, and 45 miles east of Redding, California. The site is located on State Route 299 northeast of Black Ranch Road between the towns of Burney and Johnson Park. The project will be constructed on a 40-acre site that is zoned for industrial use. Approximately one-third of the site is currently used by Burney Mountain Power to operate a 10 MW biomass-fired power plant.

The project consists of a power island, administrative buildings, chemical storage areas, cooling tower and other support facilities. Natural gas will be supplied to the project via a new 2,500 to 7,000 foot 12-inch pipeline connection with Pacific Gas and Electric's (PG&E) natural gas pipeline located southeast of the project site. The applicant has identified three alternative routes for the natural gas pipeline connection. Water will be supplied to the project by the Burney Water District. The Burney Water District will add approximately 3,000 feet of new 14-inch pipeline to connect new wells to the Burney Water District storage tank. A new 4,700 foot 24-inch pipeline will be constructed from the wells to the project site to provide no more than 3,500 acre-feet of water per year.

To terminate the project's 230 kiloVolt (kV) system to the existing PG&E transmission lines, a new switchyard will be constructed west of the proposed project site, on the west side of the railroad right-of-way. A new 1,800 foot 230 kV double-circuit transmission line interconnection will be built between the project site and the existing PG&E 230 kV transmission lines. Approximately 88 miles of the existing PG&E 230 kV transmission lines will be reconductored. No new towers or replacement towers are proposed.

The project is estimated to have a capital cost of about \$250 million. The applicant plans to complete construction and start operation of the project by the second quarter of 2002. During construction, an average of approximately 200 workers would be employed. During operation, the project would employ 20 to 25 full-time staff.

POTENTIAL ISSUES

This portion of the report contains a discussion of the potential issues the Energy Commission staff has identified to date. The Committee should be aware that this report may not include all the significant issues that may arise during the case, as discovery is not yet complete, and other parties have not had an opportunity to identify their concerns. The identification of the potential issues contained in this report was based on our judgment as to whether any of the following circumstances will occur:

- staff will identify significant impacts from the project which may be difficult to mitigate;
- the project as proposed may not comply with applicable laws, ordinances regulations or standards (LORS);
- conflicts arise between the parties about the appropriate findings or conditions of certification that could result in a delay in the schedule.

The following table lists all the subject areas evaluated and shows those areas where potentially significant issues have been identified. Even though an area is identified as having no potential issues, it does not mean that no issue will arise related to the subject area. For example, disagreements regarding the appropriate conditions of certification may arise between staff and applicant that will require discussion at workshops or even subsequent hearings. However, we do not believe such an issue will have an impact on the case schedule or that resolution will be difficult.

| Potential Issue | Subject Area | Potential Issue | Subject Area |
|-----------------|---|-----------------|---------------------------------------|
| Yes | Air Quality | Yes | Noise |
| No | Alternatives ¹ | No | Paleontologic Resources |
| Yes | Biological Resources | No | Public Health |
| No | Cultural Resources | No | Socioeconomics |
| No | Efficiency and Reliability | No | Soils |
| No | Electromagnetic Fields & Health Effects | Yes | Traffic and Transportation |
| No | Facility Design | No | Transmission Line Safety and Nuisance |
| No | Geological Resources | Yes | Transmission System Engineering |
| No | Hazardous Materials | No | Visual Resources |
| No | Industrial Safety and Fire Protection | No | Waste Management |
| Yes | Land Use | Yes | Water Resources |
| No | Need Conformance | | |

¹ At this time, staff believes that the project's impacts will not be difficult to resolve. Consequently, we do not perceive any significant issues regarding staff's alternative analysis to arise.

The following discussion summarizes each potential issue, identifies the parties needed to resolve the issue and suggests a process for achieving resolution. At this time, we do not see any of these potential issues as unresolvable.

AIR QUALITY

Two air quality impact issues will need to be addressed during the project's licensing: 1) the project's emissions of particulate matter less than ten microns (PM₁₀) could potentially cause a new violation of the state 24-hour ambient air quality standard for PM₁₀; and 2) the project's emissions of ozone precursors (nitrogen oxides {NO_x} and volatile organic compounds {VOC}) may contribute to regional violations of the ambient air quality standards for ozone.

VIOLATIONS OF THE STATE 24-HOUR PM₁₀ STANDARD:

Ambient PM₁₀ levels approaching the state standard (between 35 and 50 µg/m³) have occurred in the District a number of times over the last four years. Thus, if the project adds any measurable amount of PM₁₀ to the ambient level, which staff believes it will, it will cause violations of the state 24-hour PM₁₀ standard, resulting in a violation.

LOCAL PM₁₀ OFFSETS SHOULD BE PROVIDED:

Staff believes that upwind PM₁₀ offsets must be provided that mitigate the direct impacts of the project. This will significantly narrow the PM₁₀ emission reduction credit (ERC) options that can be used to mitigate the project's PM₁₀ emission impact, and this may affect the applicant's ability to secure appropriate ERCs in a timely manner.

CONTRIBUTION TO REGIONAL OZONE VIOLATIONS

The project area is nonattainment for the state ambient air quality standard for ozone,² and the project may contribute to violations of that standard. Staff acknowledges that there is uncertainty regarding whether the project would have a substantial contribution to regional ozone violations. If staff determined that these impacts were likely to occur, emission reduction credits (ERCs or offsets) usually required by air district regulations are the measures staff would normally rely on to mitigate such ozone impacts. However, in this case, the Shasta County Air Quality Management District (District) current regulations do not require that ERCs be provided.³ Nevertheless, the applicant has indicated in its application that it will provide ERCs for the project, and the District is evaluating the applicant's proposal as though they were required pursuant to District regulations (e.g., the District is applying its offset ratio and banking criteria to the emission reductions proposed to offset the project).

² The project area is currently classified as attainment for the federal ambient air quality standard for ozone.

³ The U.S. Environmental Protection Agency (EPA) embodies the District's regulations as federal regulations when EPA adopts the State Implementation Plan (SIP). It is our understanding that the District's regulations adopted as part of the current SIP would require ERCs. This could mean that federal regulations would require ERCs and that the ERCs proposed by the applicant be evaluated under the current SIP regulations.

The applicant intends to mitigate the project's emission impacts with a combination of banked ERCs and contemporaneous emission reductions that have not yet been banked. This may lead to two potential problems:

VERIFICATION OF BANKED ERCs:

Based on the review of another project in Shasta County, staff believes that the Air Resources Board (ARB) and U.S. Environmental Protection Agency (EPA) staffs may raise concerns about the calculation methods proposed by the applicant to quantify the available emission reductions to qualify as ERCs. Consequently, the ERC proposed by the applicant may not be sufficient to satisfy the project's "offset liabilities".

BANKING OF ERCs MAY BE NEEDED:

As a contingency measure, the applicant has explored the possibility of finding other ERC sources, both inside and outside the District, with the intent of banking the emission reductions to use for the Three Mountain Power Project. Since the emission reductions from these potential sources have not yet occurred and are not currently banked, the owners of these sources must complete the modifications needed and then file a banking application with the appropriate District. This process can take many months, and thus, could significantly affect the project schedule since the ERCs need to be banked prior to the issuance of the District's preliminary Determination of Compliance (DOC).

ISSUE RESOLUTION

Staff will work with the District, ARB, and EPA staffs and the applicant to address these issues. The first step will be the issuing of data requests in early August. Additional data requests or workshops may be required to address these issues. The attached schedule shows that the District will issue its preliminary Determination of Compliance (DOC) on October 21, 1999. This schedule needs to be confirmed with the District staff. Staff will meet with the District staff to discuss schedule and the issues.

BIOLOGICAL RESOURCES

To interconnect the proposed project to the electric transmission system, the Three Mountain Power Plant project will require reconductoring of 88 miles of an existing Pacific Gas and Electric 230 kV transmission line. Reconductoring will be accomplished from 20 (3-acres each) pull sites spaced at a maximum of 4 miles apart. No new towers or access roads will be required. The transmission line route traverses U.S. Forest Service land, and several water ways and habitat types that support sensitive biological resources, including rare plants, wetlands, and nesting raptors. The applicant did helicopter surveys to determine habitat types along the line in March 1999. Reconnaissance-level ground surveys of pull sites were done in April 1999. Because of cold temperatures, some sensitive plants and raptor nesting sites were not apparent during the time of the surveys. The application states (page I-2-156) that pull sites will be revisited and surveyed prior to reconductoring activities and that sensitive biological resources will be avoided. The application further states (page I-2-156) that a Raptor Management Plan will be prepared to address potential impacts to nesting raptors. To ensure avoidance of sensitive

habitats, plants and wildlife, staff will require the applicant to prepare a detailed draft Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) prior to the preparing the Preliminary Staff Assessment. This BRMIMP must 1) describe and map specific biological resources at each pull site and lay down area; 2) address specific measures that will be taken to avoid the resources; 3) provide the Raptor Management Plan; 4) include correspondence that verifies coordination with the U.S. Forest Service for conducting activities on their land, and; 5) include correspondence that verifies coordination with California Department of Fish and Game and U.S. Fish and Wildlife Service. If these steps are taken, it is likely that significant biological impacts will be avoided or mitigated to insignificant levels.

LAND USE

Shasta County's site development standards for a General Industrial District (Chapter 17.58 of the zoning code), such as the project site, specify that the maximum allowable height for structures is 45 feet (excluding electric transmission lines or towers). The proposed stack would be 140 feet high (application page 6.6-40). The application states that the zoning ordinance allows structures to be erected to a greater height than the limit, if a use permit is issued, per Section 17.84.030 of the zoning code. The Shasta County Department of Resource Management staff has indicated that they will not issue a conditional use permit for the proposed project, since the project is under the Energy Commission jurisdiction. Consequently, staff will need to work with the applicant and Shasta County staff to determine what analysis must be conducted or what conditions must be placed on the project to show conformance with county zoning code.

The application (p.6.3-23) states that "Three Mountain Power, LCC will be responsible for ensuring that a visual buffer surrounds the 40-acre parcel that screens the site from public view." This implies that the buffer would be on adjacent parcels, not on the proposed site. The applicant does not have control over the adjacent parcels, and the Shasta County Department of Resource Management staff has indicated that some of the trees providing the screening have recently died and that additional screening will be needed. It is not clear what steps the applicant proposes to ensure that the visual buffer on adjacent parcels would be maintained and enhanced. Staff will work with Shasta County Department of Resource Management staff to assess methods to maintain the visual buffer consistent with Shasta County practices.

NOISE

The staff has concerns with the information submitted by the applicant regarding the distance from the project to the nearest noise sensitive receptor and the noise limitation of the Shasta County General Plan Noise Element. Staff also has concerns regarding the methods used by the applicant in the application to estimate the projected noise levels to the nearest receptor. Consequently, staff believes there is a potential for the project to impact the nearest noise sensitive receptors. The project's design may have to be modified to further attenuate noise from the project to achieve compliance with applicable LORS and criteria. Staff has issued data requests to clarify these issues, and will discuss these issues at future workshops.

TRAFFIC AND TRANSPORTATION

The decrease in the level of service (LOS) to unacceptable levels is of concern on State Route 299 during construction. Tamarack Road to the project driveway at Energy Drive will be affected (LOS E between Tamarack Road and Plumas Street and LOS D between Plumas Street and Energy Drive).

The provision of access to the site via a single driveway at Energy Drive combined with a significant increase in truck traffic on State Route 299 may be of concern during the construction phase of the project considering the heavy influx of northbound vehicles turning onto Energy Drive (some carrying hazardous materials) and the resulting vehicle delays and queuing at the Energy Drive/State Route 299 intersection. Staff has issued data requests to clarify these issues, and will discuss these issues with the county and Cal-Trans staffs at future workshops.

TRANSMISSION SYSTEM ENGINEERING

Based on the Preliminary Interconnection Study information available to staff at present, staff does not anticipate a major transmission issue, which would significantly affect the schedule or be a “show stopper”. However, several concerns regarding the Three Mountain Power Project May 14, 1999 Preliminary Facilities Study have been raised by the Transmission Agency of Northern California (TANC). Their concerns are as follows:

- Because of the interconnected nature of the northern California transmission system, TANC is concerned about negative impacts on power imports carried by the California Oregon Intertie (COI) and on operation of northern California hydroelectric generation. (Letter from Les Toth to David Larsen, May 24, 1999)
- After review of the May 14, 1999 Preliminary Facilities Study (Study) conducted by PG&E for the project, TANC has questions about the Study assumptions and the need for sensitivity studies regarding COI transfers and northern California hydroelectric generation assumptions. (see Letter from Les Toth to David Larsen, May 24, 1999) Staff has not yet received a copy of the May 14, 1999 Study.
- TANC believes that PG&E and the applicant did not respond to TANC's concerns in a timely manner, and thus, TANC believes they did not have an opportunity for meaningful input to the Energy Commission's data adequacy process (Letter from Maury Kruth to Rick Buell, July 13, 1999)

Staff received a copy of the July 7, 1999 letter from Jeffrey C. Miller, representing the Cal-ISO, indicating that “[t]he ISO believes that the TMPP PFS [Three Mountain Power Project May 14, 1999 Preliminary Facilities Study] is adequate to determine the facilities that will need to be reinforced in order for the TMPP to reliably interconnect to the ISO Controlled Grid. A Detailed Facilities Study will need to be completed before the ISO can grant final interconnection approval, but the studies performed in the PFS are adequate for the ISO to grant preliminary interconnection approval at this time. Preliminary approval should be sufficient for TMPP to complete its permitting process at the CEC.”

Without the May 14, 1999 Study, staff can take no position on potential impacts to the COI, northern California hydroelectric generation or Study scope and assumptions (a data request was issued on August 2, 1999 to obtain this study). It appears initially that TANC's concerns are matters to be decided by the California Independent System Operator (Cal-ISO) and stakeholders rather than issues related to environmental quality or project acceptability to be considered in the Energy Commission process. Staff will consider TANC's comments when we receive the May 14, 1999 Study.

WATER RESOURCES

WASTEWATER DISPOSAL

The applicant has proposed that wastewater from the proposed project be disposed of through unlined ponds constructed adjacent to the power plant site by the Burney Water District. Disposal of wastewater in unlined ponds may lead to groundwater contamination. Furthermore, use of unlined ponds for cooling water blowdown disposal may be inconsistent with State Water Resources Control Board Policy 75-58: ***Water Quality Control Policy on the Use and Disposal of Inland Waters Used for Powerplant Cooling***. This policy states that:

"The discharge to land disposal sites of blowdown waters from inland powerplant cooling facilities shall be prohibited except to salt sinks or to lined facilities approved by the Regional and State Boards for the reception of such wastes."

WATER SUPPLY

Groundwater from Burney Water District wells will be the project's water supply. The water supply will likely be from two wells located upgradient of the existing Burney Water District percolation ponds. Serving the proposed project will more than double the district's existing maximum daily demand. Additional pumping for the proposed project may cause interference with other wells or reduce surface water flows. The main surface drainage in the project area is Burney Creek, approximately one mile to the northwest that has a relatively constant flow due to groundwater discharges. The groundwater also discharges to Burney Falls and nearby springs. It is estimated that project pumping will decrease the amount of total discharge from the Burney basin by two percent with no observable changes in the discharge over Burney Falls. These potential groundwater and related surface water impacts will be difficult to evaluate given the varied responses to groundwater pumping that is characteristic of a faulted volcanic aquifer.

Staff will be working closely with the applicant, local and state agencies to resolve these issues.

SCHEDULING ISSUES

We have begun our analysis of the potential issues identified above, as well as our assessment of other environmental and engineering aspects of the applicant's proposal. As noted above, the first step in that assessment was the issuing of data requests to the applicant on August 2, 1999 in all technical areas except for air quality and water resources. Data requests for these two areas will be issued in the

next week. Over the next few months, we will conduct publicly noticed workshops to address identified concerns. Staff's proposed schedule for the Three Mountain Power Project is attached.

Our initial findings regarding the major issues discussed above, as well as other environmental and engineering findings will be presented in the Preliminary Staff Assessment (PSA) which we expect to file on December 6, 1999. After filing the PSA, we will conduct public workshops to discuss its findings, recommendations and proposed conditions of certification. Based on these workshop discussions and other information that may be provided, we will present our conclusions and recommendations in the Final Staff Assessment (FSA) that is expected to be filed by January 19, 2000.

Federal and state permits may potentially be required from the U.S. Army Corps of Engineers (if the transmission line reconductoring crosses inland waters), U.S. Fish and Wildlife Service (if the transmission line reconductoring impacts federally listed endangered species or wetlands), and the California Department of Fish and Game (CDFG) (if the transmission line reconductoring impacts state listed endangered species or the bed, channel, or bank of any river, stream or lake). At this time, the applicant has indicated that the reconductoring of the transmission line will be carried out to avoid impacts to endangered species or wetlands. Staff is uncertain whether the project will cross inland waters, and thus, whether a permit will be required from the U.S. Army Corps of Engineers and CDFG. Staff will be evaluating these issues and whether any federal or state permits are required. Failure to apply for federal or state permits in a timely fashion, should they be required, could effect staff's review of the project.

Although staff has received the California Independent System Operator's (Cal-ISO) approval of the Preliminary Facilities Study, The Transmission Agency of Northern California (TANC) has raised issues that may need to be addressed. At this time, staff does not know whether these issues need to be addressed now, or whether they can be delayed until the Detailed Facilities Study is completed for the project, i.e., post certification.

Key events that will dictate whether staff will be able to meet the dates identified in the following schedule are:

- the applicant's timely response to staff's data requests
- the applicant's timely submittal of information required by the Shasta County Air Quality Management District (District)
- the District's filing of its preliminary and final Determination of Compliance
- the applicant's timely submittal of information requested by interested agencies or parties

**Energy Facilities Siting & Environmental Protection Division
Proposed Schedule For Three Mountain Power Project (99-AFC-2)**

| DATE | DAYS | EVENT |
|------------------|------------|---|
| 23-Jun-99 | 0 | Application deemed data adequate |
| 07-Jul-99 | 14 | Cal-ISO files recommendations regarding preliminary transmission line interconnection study |
| 23-Jul-99 | 30 | Applicant initiates transmission line interconnection study with utility |
| 23-Jul-99 | 30 | Applicant initiates local, state or federal permit or approval processes |
| 02-Aug-99 | 40 | Staff Submits Data Requests |
| 09-Aug-99 | 47 | Staff Files Issue Identification Report and proposed schedule |
| 12-Aug-99 | 50 | Data Request Workshop |
| 16-Aug-99 | 54 | Committee Information Hearing, Issue Identification & Site Visit |
| 19-Aug-99 | 57 | Agencies and other parties submit data requests |
| 02-Sep-99 | 71 | Data Responses due |
| 20-Oct-99 | 119 | Applicant files complete products for studies, permits or determinations |
| 21-Oct-99 | 120 | APCD files Preliminary Determination of Compliance |
| 22-Oct-99 | 121 | Applicant submits Letters of Intent to purchase emission reduction credits |
| 19-Nov-99 | 149 | Agencies submit draft permits or opinions |
| 06-Dec-99 | 166 | File PSA |
| 16-Dec-99 | 176 | Parties file Prehearing Conference Statements |
| 20-Dec-99 | 180 | APCD files Final Determination of Compliance |
| 20-Dec-99 | 180 | Applicant submits signed options or contracts for purchase emission reduction credits |
| 30-Dec-99 | 190 | Prehearing Conference |
| 19-Jan-00 | 210 | File FSA |
| 02-Feb-00 | 224 | Start Hearings |
| 18-Feb-00 | 240 | Conclude Hearings |
| 24-Apr-00 | 306 | Committee Issues Draft Presiding Members Proposed Decision (PMPD) |
| 18-May-00 | 330 | Committee conducts hearing on PMPD |
| 23-May-00 | 335 | End of PMPD comment period for agencies and others |
| 07-Jun-00 | 350 | Committee Issues Revised PMPD |
| 16-Jun-00 | 359 | State and federal wildlife agencies issue permits or biological opinions |
| 21-Jun-00 | 364 | Commission Hearing on Revised PMPD |
| 21-Jun-00 | 364 | Adopt Decision |